



Vane Scrubbers Vertical Type 100V

*Natural Gas Transmission Gathering Systems
In-plant Process Gas & Steam*



- Contains liquid slugs
- Separation of entrained liquids
- 99.9% liquids removal to 8-10 microns
- High turndown ratio

WINSTON / ROYAL GUARD CORPORATION



Vertical Vane Scrubbers Winston/Royal Guard Type 100V

2-phase scrubbers for removal of liquids from natural gas, process gas, and steam

The Type 100V Vertical Vane Scrubber efficiently removes liquid slugs from natural gas and separates mist and entrained liquid particles from natural gas, process gas, or steam. With the offset nozzle design and vane internal, liquid slugs and liquid particles 8-10 microns and larger will be removed, providing clean dry gas to protect compressors, turbines, meters, and other equipment. The vertical design also offers a smaller footprint for applications where space is limited. The design of the Winston/Royal Guard vane separator offers high efficiency over a wide range of flow.



Principle of operation: When gas enters the scrubber through the lower nozzle, liquid slugs fall to the bottom of the vessel while the gas flows upward toward the vane separator internal. As the gas passes through the tortuous path of the corrugated vane plates, inertial impaction causes mist and entrained liquid particles to separate out of the flow as they are heavier and unable to change direction with the gas. Impinging on the vane surfaces, liquid particles become enlarged through coalescence as they travel along these surfaces and collect in the vane's hooks. The hooks are installed vertically and strategically placed at turns in the vane plates so as to intercept the liquid. The collected liquid moves down these hooks and falls to the bottom of the vane. A small diameter pipe (down-comer) moves the collected liquids to the bottom of the scrubber housing for drainage. Clean, dry gas exits the scrubber's outlet.

Benefits:

- Removes 99.9% of liquid particles 8-10 micron size and larger.
- High turndown ratio - effective operation over a wide range of flow.
- Vertical design offers a smaller footprint for limited space applications.
- Stainless Steel vane internal provides optimum lifetime.
- Small non-sticky contaminants suspended in the liquids will also be removed.

Along with specific customer requirements some of the many options available are:

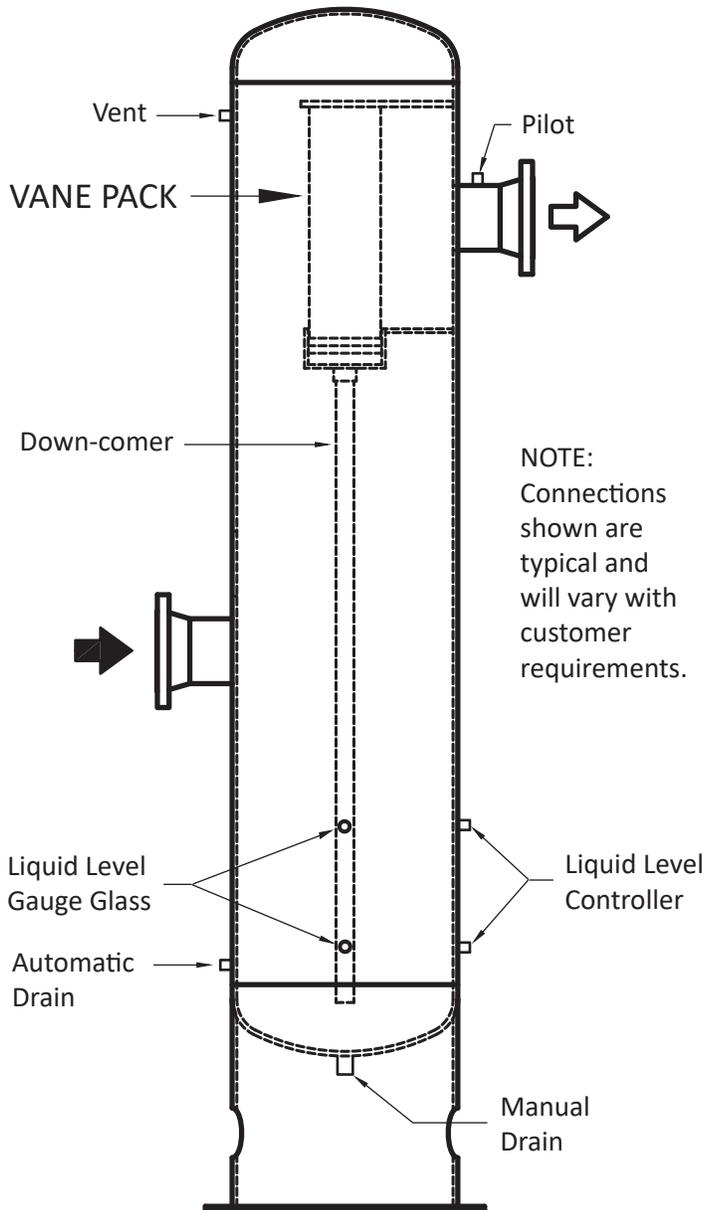
- Custom nozzle orientation
- Steel base mounting
- Lifting eyes
- Valve and control packages

ASME Code Certified: Winston/Royal Guard is an ASME Section VIII, Division 1 Code certified manufacturing facility with National Board certification. Capabilities include all types of non-destructive testing with a rigidly controlled Quality Control system.

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Vertical Vane Scrubbers Winston/Royal Guard Type 100V



Typical Vane section

Specifications are subject to change without notice. 6-1-2022 (supersedes 6-28-2021)

WINSTON / ROYAL GUARD CORPORATION

P. O. Box 1145 • White Oak, Texas 75693 USA

Phone (800) 527-8465 • (903) 757-7341 • Fax (903) 759-6986

Winston-RoyalGuard.com • e-mail: sales@winston-royalguard.com

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